DEPARTMENT OF THE INTERIOR

National Park Service

36 CFR Part 7

RIN 1024–AC90

Glen Canyon National Recreation Area, PWC Use

AGENCY: National Park Service, Interior.

ACTION: Final rule.

SUMMARY: This rule designates areas where personal watercraft (PWC) may be used in Glen Canyon National Recreation Area, Utah and Arizona. This rule implements the provisions of the National Park Service (NPS) general regulation authorizing parks to allow the use of PWC by promulgating special regulations. The NPS Management Policies 2001 provides that individual parks should determine whether PWC use is appropriate for a specific park area based on an evaluation of that area's enabling legislation, resources and values, other visitor uses, overall management objectives, and consistent with the criteria of the NPS for managing visitor use.

EFFECTIVE DATE: This rule becomes effective upon publication in the Federal Register.

ADDRESSES: Mail inquiries to Kitty L. Roberts, Superintendent, Glen Canyon National Recreation Area, P.O. Box 1507, Page, Arizona 86040.

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SUPPLEMENTARY INFORMATION:

Background

Statutory Authority to Regulate Recreational Use

The NPS is granted broad statutory authority under various acts of Congress to manage and regulate water activities in areas of the National Park System. 16 U.S.C. 1, 1a–2(h) and 3. The NPS's Organic Act of 1916 (Organic Act) (16 U.S.C. 1 et seq.) authorizes the NPS to "regulate the use of Federal areas known as national parks, monuments, and reservations * * * by such means and measures as conform to the fundamental purpose of the said parks * * * which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Congress has also emphasized that the "authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the national park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress." 16 U.S.C. 1a–1. The appropriateness of a visitor use or recreational activity will vary from park to park. NPS Management Policies states that "the laws do give the Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values." (1.4.3). NPS Management Policies provide further that, "preserving park resources and values unimpaired is the core, or primary responsibility of

NPS managers * * *. In cases of doubt as to impacts of activities on park natural resources, the Service will decide in favor of protecting the natural resources." (4: 1).

The Organic Act and the other statutory authorities of the NPS vest the NPS with substantial discretion in determining how best to manage park resources and provide for park visitors. "Courts have noted that the Organic Act is silent as to the specifics of park management and that under such circumstances, the NPS has broad discretion in determining which avenues best achieve the Organic Act's mandate * * *. Further, the NPS is empowered with the authority to determine what uses of park resources are proper and what proportion of the park resources are available for each use" Bicycle Trail Council of Marin v. Babbitt, 82 F.3d 1445, 1454 (9th Cir. 1996), quoting National Wildlife Federation v. National Park Service, 669 F. Supp. 384, 390 (D. Wyo. 1987). In reviewing a challenge to NPS regulations at Everglades National Park, the court stated, "The task of weighing the competing uses of Federal property have been delegated by Congress to the Secretary of the Interior * * *. Consequently, the Secretary has broad discretion in determining how best to protect public land resources." Organized Fisherman of Florida v. Hodel, 775 F.2d 1544, 1550 (11th Cir. 1985), cert. denied, 476 U.S. 1169 (1986).

Regulation of PWC Use

Over the years, NPS areas have been impacted with new, and what often prove to be controversial, recreational activities. These activities tend to gain a foothold in NPS areas in their infancy, before a full evaluation of the possible impacts and ramifications that expanded use will have on the area can be initiated, completed, and considered. PWC use fits this category.

PWC use emerged and gained popularity in park units before the National Park Service could initiate and complete a full evaluation of the possible impacts and ramifications. Although PWC use remains a relatively new recreational activity, it has occurred in 32 of 87 park units that allow motorized boating.

The National Park Service first began to study PWC in Everglades National Park. The studies showed that PWC use over emergent vegetation, shallow grass flats, and mud flats commonly used by feeding shore birds damaged the vegetation, adversely impacted the shore birds, and disturbed the life cycles of other wildlife. Consequently, managers at Everglades National Park determined that PWC use was inconsistent with the resources, values, and purposes for which the park was established. In 1994, the National Park Service prohibited PWC at Everglades National Park by a special regulation 36 CFR 7.45(e)(8) (59 FR 58781, Nov. 15, 1994).

Other public entities have taken steps to limit, and even to ban, PWC use in certain waterways as national researchers study more about the effects of PWC use. At least 34 states have either implemented regulations or considered regulating the use and operation of PWC (63 FR 49314, Sept. 15, 1998). Several Federal agencies, including the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration, have managed PWC differently than other classes of motorized watercraft.

When the National Oceanic and Atmospheric Administration regulated the use of PWC in most national marine sanctuaries, it was sued by the PWC Industry Association (PWIA). As a result, the Court of Appeals for the District of Columbia declared such PWC-specific management to be valid. In PWC Industry Association v. Department of

Commerce, 48 F.3d 540 (D.C. Cir. 1995), the court ruled that an agency can discriminate and manage one type of vessel (specifically, PWC) differently than other vessels if the agency explains its reasons for the differentiation.

In February 1997, the Tahoe Regional Planning Agency, the governing body charged with ensuring no derogation of Lake Tahoe's water quality, voted unanimously to ban all vessels using two-stroke, internal combustion engines, including PWC, because of their adverse effects on water quality. Lake Tahoe's ban began in 2000.

Historically, the National Park Service grouped PWC with all other vessels. Thus, people could use PWC within a park service unit when the unit allowed the use of other vessels. However, by 1998 the National Park Service had closed seven units to PWC and other motorized vessels use through the implementation of horsepower restrictions and park-specific regulations such as those promulgated by Everglades National Park. At that time, the National Park Service was reevaluating its management of PWC use, based on its responsibilities under the Organic Act and increased concerns for public safety.

In May 1998, the Bluewater Network, a private, independent, non-profit organization, filed a petition urging the National Park Service to initiate a rulemaking process to prohibit PWC use throughout the national park system. In response to the petition the National Park Service proposed a specific PWC regulation premised on the notion that PWC differ from conventional watercraft in terms of design, use, safety record, controversy, visitor impacts, resource impacts, horsepower-to-vessel ratio, and thrust capacity (63 FR 49312, Sept. 15, 1998).

The National Park Service envisioned the servicewide regulation as an opportunity to evaluate impacts of PWC use before authorizing their use. The preamble

to the servicewide regulation calls the regulation a “conservative approach to managing PWC use” that considered resource concerns, visitor conflicts, visitor enjoyment, and visitor safety. During a 60-day public comment period, the National Park Service received nearly 20,000 comments on the proposed regulation. As a result of public comments and further review, the National Park Service issued a final rule (36 CFR 3.24(a), 64 FR 15077, March 21, 2000) that prohibited PWC use in park units, unless authorized by a special regulation.

In the 2001 Management Policies, the NPS adopted its new servicewide policy for PWC. As stated in section 8.2.3.3, “PWC use is prohibited unless it has been identified as appropriate for a specific park.” PWC use can only be authorized based on “an evaluation of the park’s enabling legislation, resources and values, other visitor uses, and overall management objectives [that] confirms that PWC use is appropriate and consistent” with other NPS management goals and objectives.

PWC Use at Glen Canyon National Recreation Area

Motorboats and other watercraft such as houseboats, ski boats, fishing boats, and powerboats have been used in Glen Canyon National Recreation Area since its establishment in 1972. PWC use has emerged at the recreation area with the introduction of this type of vessel in the 1980s. Prior to 2000, PWC use was allowed throughout Glen Canyon National Recreation Area except in the waters designated closed in the Superintendent's Compendium, which included portions of the Colorado, Dirty Devil, Escalante, and San Juan rivers. These closures were for the protection of environmental values and the avoidance of conflict between users.

Glen Canyon National Recreation Area is located within the states of Arizona and Utah. Both states enforce their laws on Lake Powell within their respective state jurisdictions. The National Park Service adopts (36 CFR 3.1) and enforces these state regulations together with the NPS boating regulations in Part 3 of Title 36 of the Code of Federal Regulations. The United States Coast Guard Regulations are also adopted in 36 CFR Part 3.

On January 17, 2003, the National Park Service published a notice of proposed rulemaking for the operation of PWC at Glen Canyon National Recreation Area (68 FR 2466). The proposed rule for PWC use was based on alternative B (the preferred alternative) in the Glen Canyon National Recreation Area Draft Environment Impact Statement (DEIS). The DEIS was made available for public review on September 13, 2002 (67 FR 58071). The DEIS analyzed three alternatives for addressing PWC use at Glen Canyon National Recreation Area. Two of the alternatives would permit PWC use with certain restrictions through the development of special regulations. Alternative A would reestablish the limits on PWC use that existed prior to 2002 under the Superintendent's Compendium. Alternative B would impose additional restrictions on PWC use beyond what was proposed by alternative A. Alternative C would leave intact the existing 36 CFR 3.24 prohibition on PWC use within the recreation area. The 60-day public comment period for the proposed rule ended March 18, 2003.

A Final Environmental Impact Statement (FEIS) was made available to the public on May 16, 2003 (68 FR 26645). Some changes were made in the FEIS in response to the over 30,000 public and agency comments received on the DEIS. These changes are discussed below under "Changes to the Final Rule." The FEIS includes a discussion of

comments section that addresses all of the issues raised by commenters to the DEIS. A Record of Decision on the FEIS was signed by the National Park Service on June 27, 2003.

While Glen Canyon National Recreational Area was officially closed to PWC use on November 6, 2002, the closure was temporarily lifted for the summer season of May 10, 2003, through September 30, 2003 after an agreement between the Bluewater Network and the Superintendent of Glen Canyon National Recreational Area. The lifting of the closure will allow the use of PWC on the majority of Lake Powell. The agreement, however, retained the restrictions in the 2002 Superintendent's Compendium and added closures from the mouth of San Juan River to the NRA boundary and north or beyond mile marker 108 of the Colorado River as measured from the Glen Canyon Dam to the NRA boundary.

Changes to the Final Rule

Some changes have been made in the FEIS and to the final rule. The alternatives presented in the DEIS were modified in the FEIS in response to comments received on the DEIS. The primary modifications to alternatives A and B in the FEIS include conducting a 3-year pilot study to identify and develop conflict resolution techniques and preparing a comprehensive lake management plan to address all uses of Lake Powell. Additionally, alternative B and the final rule were modified to include compliance with 2006 emission standards (described below) and to add an additional geographic restriction.

1. Alternative B includes strategies to better protect recreation area resources, improve visitor safety, and reduce conflicts. These strategies include conducting a 3-year pilot study to identify the techniques and area restrictions that would be most effective in reducing conflicts and preparing a comprehensive lake management plan addressing all uses. See the discussion below in the comments summary (e.g., comment numbers 20 and 60) and in appendix C of the Draft and Final Environmental Impact Statement.

2. Alternative B, as reflected in this final rule, requires that PWC in the recreation area meet the 2006 U.S. Environmental Protection Agency emissions standards by the end of 2012 and in subsequent years. PWC not meeting the standards would no longer be permitted to operate within Glen Canyon National Recreation Area beginning in 2013. See the discussion below under number 17 in the comments discussion.

3. In the DEIS and NPRM a PWC would have been allowed to operate at flat wake speed on the Dirty Devil River upstream of the Utah Highway 95 bridge to a point where measurable downstream current is encountered. In the FEIS and final rule, PWC use on the Dirty Devil River upstream of the Utah Highway 95 bridge is prohibited. In addition the reference to Coyote Gulch in the proposed rule has been changed in the final rule to reference Coyote Creek. Coyote Creek is the correct geographic name for the area discussed and this non-substantive change was made for clarification.

Discussion of Economic Effects of PWC Use

In the Economic Analysis, NPS estimates that the total impact of the proposed alternatives for regulating PWC use in Glen Canyon on Page, Arizona, output is $23.8 to $39.9 million for Alternatives A and B and $0 for Alternative C (because this alternative maintains baseline conditions) in the first year after the rule implementation. The

increases in output under Alternatives A and B are substantial compared to the size of the regional economy, ranging from about 11 to 18 percent of regional personal income. Area businesses would be likely to experience large positive impacts under this final rule.

Summary of Comments

A proposed rule was published for public comment on January 17, 2003 (68 FR 2,466-76), with the comment period lasting until March 17, 2003. The National Park Service received 2,170 timely written responses regarding the proposed regulation. Of the responses, 1,973 were form letters in 5 separate formats and 197 were individual letters. Of the 197 individual letters received 180 were from individuals, 5 from businesses, 8 from organizations and 4 from public agencies. Within the analysis, the term "commenter" refers to an individual, business, or organization that responded. The term "comments" refers to statements made by a commenter.

General Comments

1. Some commenters, including the PWC Industry Association (PWIA), advocate that any regulation or restriction on PWC by the National Park Service should be uniformly applied to all motorized recreational vessels. Allowing other motorized vessels to operate in some of the proposed restricted areas would undermine the purported goals of reducing user conflicts and allowing for solitude and quiet. Closing these river areas to PWC, and not other motorized vessels, would be discriminatory.

NPS Response: With this final rule the National Park Service is adopting special regulations to manage PWC use at Glen Canyon. The alternatives listed in the Final

Environmental Impact Statement were based upon the best information available. As noted by the commenter, the management actions under modified preferred alternative B for the San Juan, Escalante, Colorado, and Dirty Devil Rivers will be implemented to reduce visitor conflicts with river rafters, fishermen, and backcountry hikers; promote opportunities for quiet and solitude; and ensure visitor safety. Following completion of the Final Environmental Impact Statement, it remains within National Park Service authority to prescribe similar use restrictions on all watercraft, if appropriate.

Glen Canyon expects to proceed with a Lake Management Plan in the near future, which will further examine vessel management as a whole on the waters of Lake Powell and its tributaries.

2. A number of commenters, including PWIA, proposed that the flat-wake zone should apply to all motorized vessels. Restricting only PWC to flat-wake speeds presents a safety hazard if other vessels are permitted to operate at significantly faster speeds.

NPS Response: Under a combination of NPS regulations and State laws and regulations all vessels are required to operate at flat wake speed in certain areas. In the case of the Escalante River, the NPS is requiring in this special regulation all PWCs to operate at flat wake speed because of the narrow waterways, blind corners and high use of the area, which would otherwise be a safety concern. The NPS has already adopted this requirement for all vessels in the Superintendent's Compendium for the same reasons.

3. Many commenters questioned why the focus of the analysis was on PWC alone when other motorized watercraft have similar or greater impacts on park resources.

NPS Response: The focus was on PWC because of the new management approach taken by the NPS. As a result, PWC use would be prohibited unless Glen Canyon NRA

adopted a special regulation. The EIS and rulemaking were not designed to determine if PWC caused more environmental damage to park resources than other boats, but rather to determine if PWC use was consistent with Glen Canyon National Recreation Area's enabling legislation and management goals and objectives. As stated in the "Purpose of and Need for Action" chapter in the Draft and Final Environmental Impact Statements, the overall objective for the EIS and rulemaking is to evaluate a range of alternatives and strategies to manage PWC use, with the goal of ensuring protection of recreation and resource value. The impacts of other motorized watercraft could be considered in a future Lake Management Plan.

4. One commenter stated that the analysis should include examples of best management practices to avoid or reduce pollution to the recreation area. They encourage the National Park Service to "use all available practices to meet the intent of guidance issued by the Council on Environmental Quality (CEQ) integrating pollution prevention opportunities in National Environmental Policy Act (NEPA) planning, documents and decisions (Pollution Prevention and the National Environmental Policy Act, CEQ, January 1993)." Pertinent provisions of executive orders should be addressed in the Final Environmental Impact Statement and the future Lake Management Plan referenced in this rulemaking.

NPS Response: Each impact topic contains a summary of the applicable laws and regulations that were applied in the analysis of the effects of PWC on Glen Canyon National Recreation Area resources and values.

The NPS and the marina operators have developed a Spill Prevention, Control, and Countermeasure Plan (SPCC) that provides recommendations and requirements to prevent

environmental damage resulting from the spills of oil and fuel. These plans are required by the Environmental Protection Agency (EPA) as stated in 40 CFR part 112. All marina operators and National Park Service must comply with these requirements and Best Management Practices contained within the Spill Prevention Plan. The CEQ requires NPS units to comply with the recommendations and requirements established by the NPS Hazardous Waste Management and Pollution Prevention Team and the EPA. An SPCC is required by EPA to protect the environment from oil spills. Glen Canyon NRA requires the current concessionaire (ARAMARK) to have a SPCC plan for each marina fueling operations. The SPCC plans comply with CEQ guidance the commenter mentions by following the EPA standards for spill protection and prevention. In addition, placards are displayed at marinas and educational materials are made available to recreation area visitors to inform boat operators about proper fueling of vessels and containers.

The National Park Service manages the water of Lake Powell in accordance with the water quality standards of Arizona and Utah. Water quality in Lake Powell is regulated by the Arizona and Utah Departments of Environmental Quality under water quality standards and regulations that are promulgated in the Arizona Administrative Code (R18-11-107) and Utah Administrative Code (R317-2), respectively. Consistent with Federal regulations, Arizona and Utah have established numerical and narrative standards that protect existing and designated uses of state waters and implement the antidegradation requirements. Compliance with the numerical standards for water quality is determined at control points that are specified in the regulations.

In the case of the Draft and Final Environmental Impact Statements, three alternatives for PWC management were analyzed. The alternatives also consider means to

mitigate the effects of PWC on park resources and values, including limiting use in areas where management objectives strive to create a visitor experience without intrusion of these vessels or where important park resources must be protected. Alternative B (modified preferred alternative) in the Final Environmental Impact Statement includes mitigation measures to protect other park users from potential conflicts with PWC (refer to the modified preferred alternative section in the "Environmental Consequences" chapter), as well as other measures to protect species of special concern and water and air resources. Requiring that PWC used in the recreation area after 2012 be compliant with the EPA 2006 emission standards for gasoline marine engines under alternative B (modified preferred alternative) will further mitigate impacts of these vessels on recreation area resources. The National Park Service finds that the modified preferred alternative will not result in an impairment of park resources and values for which the Glen Canyon National Recreation Area was established.

5. Several commenters stated that limiting access to PWC users is against the intent which Glen Canyon National Recreation Area was created.

NPS Response: The authorizing legislation for Glen Canyon National Recreation Area was considered when developing alternatives to be analyzed in the Draft and Final Environmental Impact Statements. The "Introduction" section in the "Purpose of and Need for Action" chapter in the Draft and Final Environmental Impact Statements states that the overall objective for the regulation and EIS is to evaluate a range of alternatives and strategies to manage PWC use, to protect recreation and resource values. This objective was derived from the enabling legislation for Glen Canyon National Recreation Area. As further stated in this section, a thorough analysis for the management of PWC

was also provided under each alternative following the guidance of the National Park Service Management Policies (2001).

Both the servicewide regulation and the National Park Service Management Policies acknowledge that park units proposing to continue PWC use must complete an analysis of impacts from PWC use. This analysis includes a thorough review of the enabling legislation of the unit and its management objectives, and the resources and values potentially affected by continued PWC use.

In the case of the Draft and Final Environmental Impact Statements, three alternatives were analyzed under various PWC scenarios. The alternatives consider various ways of mitigating the effects of PWC on park resources and values, including limiting use in areas where management objectives strive to create a visitor experience without intrusion of these vessels or where important park resources must be protected. Alternative B (modified preferred alternative) in the Final Environmental Impact Statement includes mitigation measures to protect other park users from potential conflicts with PWC (refer to the discussion for alternative B in the "Environmental Consequences" chapter), as well as other measures to protect species of special concern and water and air resources.

As a result, the alternatives presented in the Draft and Final Environmental Impact Statements protect resources and values while providing for a number of different recreational opportunities for park visitors to enjoy at Glen Canyon National Recreation Area. The NPS concluded that limiting PWC access in certain areas is necessary and appropriate for achieving management objectives in those areas of Glen Canyon NRA.

6. Several comments were received citing the Organic Act and the mission of the National Park Service to leave the resources and wildlife "unimpaired for future

generations." A number of letters were received stating Federal law clearly prohibits activities that impair or derogate the recreation area resources.

NPS Response: We agree. The "Summary of Laws and Policies" section in the "Environmental Consequences" chapter summarizes the three overarching laws that guide the National Park Service in making decisions concerning protection of park resources. These laws, as well as others, are also reflected in the NPS Management Policies. An explanation of how the Park Service applied these laws and policies to analyze the effects of PWC on Lake Powell resources and values can be found under "Impairment Analysis" in the "Methodology" section of the "Environmental Consequences" chapter. For each resource topic, the Final Environmental Impact Statement established thresholds or indicators of magnitude of impact. An impact approaching a "major" level of intensity is one indication that impairment could result. For each impact topic, when the intensity approached "major," the interdisciplinary planning team would consider mitigation measures to reduce the potential for "major" impacts, thus reducing the potential for impairment.

The National Park Service finds that alternative B (modified preferred alternative) presented in the Final Environmental Impact Statement will not result in an impairment of park resources and values for which the Glen Canyon National Recreation Area was established.

Rulemaking Process Comments

7. Several commenters questioned how a proposed rule supporting a preferred alternative can be issued before a Final Environmental Impact Statement and a Record of Decision have been issued.

NPS Response: In January of 2003, the National Park Service published a proposed rule that proposed the preferred alternative in the Draft Environmental Impact Statement. The National Park Service approach was to allow the public an opportunity to view the preferred alternative in a regulatory form and comment on that proposed rule similar to the comment period for the Draft Environmental Impact Statement. Upon review and consideration of those comments, and in conjunction with the comments received on the Draft Environmental Impact Statement, the National Park Service has modified the final rule and the Final Environmental Impact Statement. Publishing the proposed rule after the DEIS allowed the National Park Service to maintain flexibility in the regulatory options in contrast to if it had waited until after the Record of Decision was issued, since that would have been a final decision document.

8. One commenter stated that until the NEPA process is complete, the rulemaking does not perform the minimal duty of informing the agency or the public about the environmental effects of the proposed rule.

NPS Response: Federal rulemaking requires that the National Environmental Policy Act be addressed, along with various other laws and Executive Orders, in the proposed and final rules. Again, the National Park Service approach was to allow the public to comment on the preferred alternative identified in the Draft Environmental Impact Statement in a regulatory form. This is the purpose of issuing proposed rules; to give the public a preliminary review of a proposed action with opportunity to comment on that proposal, provide additional or new information, and point out elements which the commenter feels are accurate or inaccurate. To that end, the agency considers those comments and modifies the final rule as necessary or even re-proposes a new rule if

significant changes need to be made. The National Park Service cannot issue a final rule until a Record of Decision is issued under the NEPA portion of the Compliance section of the rule. The final rule is the National Park Service's final conclusion and must be consistent with the Record of Decision.

9. One commenter stated that there is a problem with publishing a final rule prior to completing the NEPA process and that this would tend to nullify the intent of NEPA by revealing that the National Park Service has already reached a conclusion prior to actually performing the required analysis.

NPS Response: We agree, but the commenter may misunderstand what was published in the Federal Register. The National Park Service has only published and taken comment on a proposed rule. This document is the final rule and it is being published now that the NEPA process is complete and a Record of Decision has been issued.

10. One commenter stated that the statement "The National Park Service has analyzed this rule in accordance with the criteria of the National Environmental Policy Act…" is clearly not true since the environmental analysis has not been completed. There has only been a Draft Environmental Impact Statement with no response to the concerns raised by the public.

NPS Response: NEPA and CEQ guidelines require that agencies publish a Draft Environmental Impact Statement as indicated by the commenter. Because the issuance of a Draft Environmental Impact Statement is consistent with these guidelines, and neither NEPA nor CEQ address the timing related to issuance of a proposed rule, the National Park Service is in accordance with NEPA.

11. One commenter is concerned that earlier public comments on the Draft Environmental Impact Statement were not taken into consideration in the rulemaking process and cites that the current discussion in the final rulemaking does not address any of the public concerns.

NPS Response: Again, the commenter seems to be under the impression that the National Park Service had previously issued a final rule on PWC management at Lake Powell. The National Park Service has issued a proposed rule which solicits comments on the proposed action (implementation of the preferred alternative identified in the Draft Environmental Impact Statement). The National Park Service did not take any comments received on the Draft Environmental Impact Statement into consideration when writing the proposed rule. Comments on the Draft Environmental Impact Statement and the proposed rule were incorporated in the Final Environmental Impact Statement, which was released on May 12, 2003, and were considered and are discussed in this final rule.

12. One commenter questioned the process by which the public is informed of the availability of the proposed rule stating that they had not received notice of the publication of the rule and that it was not available in the press. The commenter further states that organizations or individuals who participate in the NEPA process should be kept informed of the progression of the process through the Draft Environmental Impact Statement, Environmental Impact Statement, Decision Notice, opportunities for appeal, and the opportunity to pursue a legal remedy.

NPS Response: On January 17, 2003, Glen Canyon issued a press release informing the public of the publication of the proposed rule in the Federal Register (68 FR 2466). In addition, the Federal Register is available to all members of the public online at

any time and in libraries throughout the country. The National Park Service does not routinely notify individuals personally about stages in the rulemaking process. The National Park Service has many parties interested in the issue of PWC and relies on local and national media and the National Recreation Area's website to provide notification of various milestones included in planning, environmental compliance, and rulemaking to interested parties.

Comments Related to Consultation and Coordination

13. One commenter requested that the National Park Service include all of Bluewater Network's previous letters and correspondences sent to Glen Canyon concerning PWC activity in the administrative record for the rule.

NPS Response: The "Methodology and Purpose" section at the beginning of volume 2 of the Final Environmental Impact Statement provides a detailed explanation of how public comments were received, reviewed, and ultimately responded to in the document. The criteria for determination of substantive comments is found in CEQ regulations (40 CFR 1503.4) and amplified in Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision Making (section 4.6 (B)). Public comments, as well as other factors, were used by Glen Canyon National Recreation Area to modify the "preferred alternative" (alternative B) that was analyzed in the Draft Environmental Impact Statement. A description of the modified preferred alternative B is found in the "Alternatives" chapter of the Final Environmental Impact Statement and in this document.

The National Park Service acknowledges the 30,000 citizen comments submitted on the National Park Service PWC rulemaking. The administrative record for this

rulemaking includes all comments and most documents received from the public, including those comments submitted by the Bluewater Network.

Comments related to Alternatives

14. A number of commenters disagreed with the restrictions on the Escalante River presented in the analysis.

NPS Response: Under current PWC management as described in the Superintendent's Compendium 2002, PWC travel upstream in the San Juan, Escalante, Colorado, and Dirty Devil Rivers is restricted. The management actions under the modified preferred alternative B, for the San Juan, Escalante, Colorado, and Dirty Devil Rivers, will additionally restrict travel downstream on the same stretches of river. Access will also be restricted in both directions on 10 additional miles of the Dirty Devil River and 23 miles on the Colorado River. We understand the disagreement with the restrictions, but based on the best available information developed in the EIS process, the NPS has determined these restrictions are necessary on the rivers to reduce visitor conflicts with river rafters, fishermen, and backcountry hikers; promote visitor enjoyment; and ensure visitor safety.

15. Many commenters stated that the selection of alternative B provides no significant benefit, except to areas at the extreme ends of the tributaries where there is no significant visitation (and now no access). Additional alternatives are available that allow PWC's access to enjoy Lake Powell without destroying the experience of other users.

NPS Response: The NPS Director's Order 12: Conservation Planning, Environment Impact Analysis and Decision-Making (NPS 2001b) states that a full range of alternatives must be examined, and that "the alternatives carried forward for analysis must

meet project objectives to a large degree, although not necessarily completely." The National Park Service believes the Draft and Final Environmental Impact Statements contain a reasonable range of alternatives under this definition.

In addition, the modified preferred alternative B provides for a three-year pilot study to further evaluate PWC use areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated during the pilot study. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C of the Final Environmental Impact Statement.

16. Several commenters suggested that the alternative selected should incorporate increased education, strict enforcement, and testing and licensing of PWC operators and that they would support increased fees for these improvements or institution of a permit system.

NPS Response: The states of Arizona and Utah establish the current operational age of PWC users. The licensing of boat or PWC operators rests with the State governments and is not an appropriate administrative activity for the Federal government. Currently, the State of Utah provides an extensive and nationally recognized mandatory education program for PWC users between the ages of 12 and 17. The National Park Service will continue to support this existing program. In addition, the modified preferred alternative B will provide enhanced educational materials and programs highlighting PWC issues to distribute to the public familiar with the State of Utah education program and for those from out of state and will seek funding to increase visitor protection staff.

17. Several commenters suggested that the alternative selected should ban the use of conventional two-stroke technology and only allow clean technology engines that would meet 2006 EPA standards.

NPS Response: The NPS considered an immediate ban of conventional two-stroke technology but, based upon the findings of the EIS process, determined it was not necessary to protect the resource and would impose an unreasonable economic burden on PWC users. Instead, the modified preferred alternative B of the Final Environmental Impact Statement requires that PWC used at Glen Canyon NRA must meet the EPA 2006 emission standards by the end of 2012. PWC not meeting the standards would no longer be allowed to operate in Glen Canyon National Recreation Area beginning in 2013.

The National Park Service expects that by 2012, most PWC owners would already be in compliance with the 2006 EPA marine engine standards. The economic impact on visitors as a result of the 2012 engine type restrictions is expected to be small. PWC manufacturers currently offer models that are compliant with the EPA 2006 standards, and new PWC purchased after 2006 will all meet the EPA emission standards. The average operating life of a PWC is 5 to 10 years, depending upon the source (see the "General Methodology" section in the "Environmental Consequences" chapter of the Final Environmental Impact Statement). As a result, it is expected that the majority of noncompliant PWC would no longer be in operation when the engine restrictions proposed under the modified preferred alternative B take effect at the end of 2012.

18. Several commenters suggested restricting speed in narrow canyons or making major canyons flat-wake zones to reduce visitor conflicts and to improve visitor safety.

NPS Response: NPS considered these measures, but concluded they were not necessary because of existing restriction under state law. Under Utah State law, all boaters must operate at flat-wake speeds or idle speed within 150 feet of another boat, a person in or floating on the water, a waterskier (except those being towed), a shore fisherman, a launching ramp, a dock, or a designated swimming area. Arizona State law requires all boaters to operate at flat-wake speeds within 60 feet of another vessel. The modified preferred alternative B addresses signing, buoys, and boater education that will enhance other watercraft operators' observance of safe boating practices.

In addition, the modified preferred alternative B currently provides for a three-year pilot study to further evaluate PWC-use areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated during the pilot study. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C of the Final Environmental Impact Statement.

19. Many commenters suggested additional alternatives to restrict PWC to specific areas such as: Wahweap Bay, Warm Creek Bay, the areas near Hall's Crossing and Bullfrog Bay, and the Colorado River from Warm Creek to the Dam. At a minimum, restrict their usage to the less remote areas of the lake, e.g., the main channel and certain large bays.

NPS Response: The alternatives in the Draft and Final Environmental Impact Statements were developed based upon the best information available. The area restrictions under the modified preferred alternative B on PWC use were identified because of the levels of non-motorized and passive uses that pose present or potential conflicts. Alternative B currently provides for a three-year pilot study to further evaluate PWC use

areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated during the pilot study. The pilot study will provide the recreation area managers with additional information to evaluate reasonable measures to manage all lake uses and activity until a lake management plan is developed for Glen Canyon NRA. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C of the Draft and Final Environmental Impact Statements.

20. One commenter was opposed to implementing a pilot study because it would result in PWC users avoiding areas zoned as flat-wake and would concentrate their use in other areas of the lake thereby reducing the ability of the study to adequately assess conflict between PWC and other users.

NPS Response: The National Park Service must manage Glen Canyon National Recreation Area to protect the recreational opportunities available at the park, as well as the natural resources found in the lake and surrounding lands. To accomplish this, a lake management plan will be developed which will provide the tools necessary to analyze activities that take place on the lake and determine if unacceptable impacts are occurring. Even though there is rationale and need to consider management of PWC under a separate decision-making framework, there remains the need to examine all uses of the lake collectively. As identified in the cumulative effects analysis under each impact topic, there are many management issues involving the mix of lake uses that will require additional planning in a lake management plan.

Modified alternative B provides for a three-year pilot study to further evaluate PWC-use areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated during the pilot study. The pilot study will provide recreation area

managers the best available data to manage all lake uses and activity until a lake management plan is developed. There are no guarantees or predictable outcome for what open areas PWC users will or will not utilize during the initial implementation of this regulation. The data collected will be analyzed based on the best information available to National Park Service managers at that time. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C of the Draft and Final Environmental Impact Statement.

Comments related to visitor conflicts and safety

21. One commenter stated that children under the age of 16 that operate PWC is a safety issue that should be addressed.

NPS Response: The National Park Service does not currently have regulations which set a minimum vessel operator age. The States of Arizona and Utah do have current operational age requirements for PWC users and those requirements are enforced by Park Rangers at Glen Canyon as NPS requirements pursuant to 36 CFR 3.1. Arizona regulations require children younger than 12 years of age to be accompanied by an adult when operating a PWC. Children older than 12 years can operate a PWC alone. Utah laws and regulations state that children between 12 and 15 can operate PWC after completing a mandatory boating education course if they remain within visual parental supervision. Children ages 16 to 17 must complete a mandatory boating education course to operate a PWC without supervision. The NPS thinks the current age requirements are acceptable and do not pose a safety issue on Lake Powell.

Comments Related to Recreation Area Operations

22. A number of commenters stated that the problem with PWC is that there are sufficient laws in place to protect visitors, however these laws are not being enforced and that there needs to be more enforcement of these laws.

NPS Response: We disagree that the existing laws are not being enforced. NPS agrees that there is a need for more enforcement and an element of the modified preferred alternative B is to seek increased funding to provide additional law enforcement at Glen Canyon National Recreation Area to enforce the existing regulations. An increased number of law enforcement officers on the lake would have the added advantage of increasing the number of visitor contacts on the lake to prevent unsafe behavior. In addition, an active information and education program, also an element of the modified preferred alternative B, will help to reduce the need for enforcement actions. However, the NPS is working with law enforcement officers from Arizona and Utah to provide a proper level of enforcement of the existing laws.

23. One commenter asked how the Federal noise standard which states "Operating a vessel in or upon inland waters so as to exceed a noise level of 82 decibels measured at a distance of 82 feet (25 meters) from the vessel is prohibited," would be enforced in the areas such as confined canyons and rivers where there is no point 25 meters from the shore.

NPS Response: Federal and State law enforcement staff within Glen Canyon NRA enforce the Federal sound standard in areas where a distance of 82 feet (25 meters) occurs such as marina launch areas and large open bays. In confined canyons and river areas where 82 feet is not obtainable, a stationary sound level test can determine if a motorboat engine is exceeding acceptable sound levels. Federal and State protection staff have the

ability to enforce excessive or unusual noise within confined areas utilizing the SAE J2005 and SAE J1970 as stated within the State of Utah Boating Laws and Rules.

Comments related to Water Quality

24. Based on the analysis of water quality in the Draft Environmental Impact Statement which stated that some hydrocarbons can adsorb onto suspended soil particles and settle out, one commenter requested that any monitoring plan should therefore include sediment chemistry monitoring in marinas and sediment deposition areas down current for the constituents most likely to settle, including poly-aromatic hydrocarbons (PAH). Additionally, to understand whether current sediment conditions and aquatic health of the benthic community is altered from the historical baseline, the monitoring plan should include benthic population sampling, and bioassay of these sediments. The Final Environmental Impact Statement should identify whether there is potential for these sediment deposition areas to be dredged. If so, it may merit implementing management practices to reduce or eliminate release of toxic constituents from PWC use.

NPS Response: Text has been added to the Final Environmental Impact Statement in the "Alternatives" section to describe the monitoring plan that was added to the modified preferred alternative B. A report is presently being completed for a study that was done to determine the chemical content of sediment at the main inflow area of the Colorado River. Funding is currently being sought for another study to do the same evaluation in the San Juan and Escalante inflow/sediment deposition areas. These studies will identify the hydrocarbon content of these sediments. In addition, another study is currently being conducted that examines the dynamics of sediment re-suspension and

reworking in the Colorado River inflow. The monitoring plan that will be developed for the lake will include PAHs, as well as other gasoline constituents that may become re-suspended when there is down-cutting of the sediment deposits as a result of lowering lake level. The monitoring program that will be developed will also consider the most likely places for contamination, such as marina areas and areas downstream from major sediment depositional zones, if appropriate. The data from a study examining visitor effects (including hydrocarbon contamination) in three canyons will be used to develop water quality baselines for Glen Canyon National Recreation Area. A lake-wide monitoring plan will then be developed using the data gathered and the methods tested in these three studies (sediment, three canyons, and synoptic). Plan development will be guided by the Technical Advisory Committee that was formed in 1996 by the National Park Service, the Departments of Environmental Quality Water Divisions of Utah and Arizona, and other interested organizations and agencies (including the EPA) to protect Lake Powell water quality. The Technical Advisory Committee provides an excellent vehicle for establishing standards and protocols for Lake Powell that are acceptable to the EPA and states and that conform to the states' regulations developed under authority of the Clean Water Act. Benthic population sampling and bioassay may be included in the monitoring plan as determined to be appropriate by the Technical Advisory Committee. Dredging to remove sediment is not contemplated by the National Park Service.

25. One commenter stated that the water quality assessment uses assumptions that result in overestimation of potential PWC hydrocarbon emissions to the water in Lake Powell, amounting to the "most extreme adverse conditions." For example, benzo(a)pyrene concentrations in gasoline range from 0.19 to 2.8 mg/kg, and the highest value was used.

Similarly, MTBE concentrations in gasoline were range from 0 to 15%, but only the highest figure was used.

NPS Response: In an effort to determine "what could happen," a conservative methodology was constructed using the highest concentration of known pollutants commonly found in gasoline. The values referenced by the commenter were incorporated into the analysis to determine if the mixing layers of Lake Powell have adequate volume to mitigate the effects of carbureted two-stroke PWC engines, as well as all other two-stroke watercraft. Using this conservative approach, it was determined that the water quality impacts generated by PWC use would be negligible to minor, and that no water quality criteria for designated uses of the lake would be violated. The National Park Service is satisfied that incorporation of the given component concentration in gasoline has served this approach. Table 10 in the Final Environmental Impact Statement shows the benchmarks used in the evaluation for each pollutant.

In addition the modified preferred alternative B in the Final Environmental Impact Statement will provide an important step toward substantially reducing petroleum-related pollution by requiring PWC used in the recreation area after 2012 be 100% compliant with the EPA 2006 emission standards for gasoline marine engines. Based on the analysis presented, the National Park Service finds that the modified preferred alternative B (including the provision for continued PWC use) will not result in an impairment of park water quality.

26. One commenter stated that the assessment represents an outdated look at potential emissions from an overstated PWC population of conventional two-stroke vessels, and underestimates the accelerating changeover to four-stroke and newer

technology two-stroke models. Sales of these newer models have already overtaken conventional two-stroke PWC. The commenter estimates that the changeover to PWC engines that meet the requirements of the EPA 2006 and California Air Resources Board (CARB) 2008 emission standards is occurring much more rapidly than EPA and the National Park Service have estimated. The commenter believes that the amounts of unburned fuel released at Lake Powell will decline rapidly, achieving a reduction from the 1998 baseline levels of more than 50% by 2006 and approximately 80% by 2012. The Draft Environmental Impact Statement, in contrast, only estimated a 25% reduction in hydrocarbon emissions from PWC in the Glen Canyon National Recreation Area by 2006, and only a 50% reduction by 2012.

NPS Response: In the water quality analysis, the assumption made by the commenter was that clean technology engines (any engine not using carbureted two-stroke technology) would be 90% cleaner than the carbureted two-stroke engines. This is based on two assumptions made by the commenter. The first is based on confidential, proprietary PWC sales and forecast data prepared by PWC manufacturers. No supporting data was supplied with the comment.

The commenter states that the data indicates that the conversion of PWC models to cleaner engines is occurring more rapidly than anticipated in the 1996 EPA analysis of the effects of the conversion rule. While the National Park Service has no reason to doubt that PWC conversions are proceeding at a greater rate than forecast by the EPA, there is no survey or similar data available at this time indicating the engine conversion at Glen Canyon is proceeding at a faster or slower rate than the EPA forecast. Therefore, use of the EPA rates is considered appropriate. The second assumption by the commenter is that 75%

of the PWC at Glen Canyon would have engines that comply with the CARB conversion rule that requires marine engine manufacturers implement the EPA emission targets sooner than those outlined by the Federal rule. The commenter assumes that 50% of PWC users at Glen Canyon will be from California, and will have CARB-compliant watercraft. And that an additional 20% will have CARB-compliant vessels. The National Park Service concurs that many watercraft users at Glen Canyon have California registered PWC, and they will meet CARB standards. However, there is no data relative to PWC at Glen Canyon to confirm the 75% figure assumed by the commenter.

The National Park Service emissions calculations are conservative only in the sense that they do not specifically account for watercraft that have already been or will be converted to meet EPA or CARB standards. Under the modified preferred alternative B, PWC used in the recreation area after 2012 would be 100% compliant with the EPA 2006 emissions standards for the manufacturing of gasoline marine engines.

27. One commenter stated that the Draft Environmental Impact Statement acknowledges that hydrocarbon compounds evaporate rapidly from water and are subject to chemical breakdown, but then states that attenuating factors such as evaporation and photodegradation are not included in the calculations. In addition, the EPA has confirmed that studies show most unburned gasoline and gasoline additives emitted from two-stroke marine engines evaporate rapidly from water (The Effects of Marine Engine Exhaust Emissions on Water Quality, Summary of Findings of Various Research Studies, EPA 1994).

NPS Response: In 1994, the EPA released a public memorandum entitled “The Effects of Marine Engine Exhaust on Water Quality: Summary of Findings of Various

Research Studies." This document summarized 11 research papers and presents volatilization rates and dilution ratios for observable effects such as taste, odor, and generation of oil film. At temperatures commonly found in Lake Powell during the summer boating season, the majority of gasoline and oil components would be volatilized within 1.2 hours. Although a portion of the gas/oil mixture may accumulate in the water column, water quality testing at Lake Powell did not reveal detectable levels of most PAH components. Given that the contaminants were largely undetectable, specific cumulative analysis of the PWC contribution is not possible at this time. The text has been changed in the Final Environmental Impact Statement to include information on volatility consistent with the above-referenced EPA memorandum.

28. One commenter requested that the Final Environmental Impact Statement list all designated uses for the water in Lake Powell.

NPS Response: Designated uses for the water of Lake Powell, as defined by Arizona and Utah, include drinking, recreation, agricultural, and aquatic life. The complete list of designated uses of the water as defined by Arizona and Utah are listed in the "Water Quality" section of the "Affected Environment" chapter of the Draft and Final Environmental Impact Statements.

29. One commenter wanted the presence and location of drinking water intakes addressed in the analysis.

NPS Response: There are two drinking water intakes within the lake, one near Hite, Utah and one at Glen Canyon Dam that serves the town of Page, Arizona. The intake near Hite is approximately 1/2 mile north (upstream) of the marina when the lake level is above 3,630 feet above sea level. The Glen Canyon Dam intake is under the jurisdiction of the

Bureau of Reclamation. The National Park Service has no access to the site, and it is not responsible for monitoring at this location. The locations of the drinking water intakes near Hite Marina and at Glen Canyon Dam has been added to the "Affected Environment" chapter in the "Water Quality" section in the Final Environmental Impact Statement.

30. One commenter stated that presenting average values for water quality testing samples infers complete mixing of lake waters.

NPS Response: Inclusion of average values was not intended to infer that lake waters are mixed, but rather to show the reader a mean value for relative comparison to measured maximum and minimum values. The "average values" have been removed from Table 8 in the Final Environmental Impact Statement.

31. One commenter stated that the need to sample Wahweap Marina is called to attention based on the results of the Bullfrog Marina sample where benzene concentrations were elevated.

NPS Response: Under the modified preferred alternative B, the National Park Service would implement a water quality monitoring program at Lake Powell. This program will be guided by the Technical Advisory Committee, and is detailed in the Final Environmental Impact Statement description of the modified preferred alternative B in the "Alternatives" chapter. Locations selected for ongoing testing will be chosen to maximize use of data in making appropriate management decisions.

32. The EPA requested that monitoring should also be done in drinking water intakes to assure that drinking water standards are met for Arizona and Utah.

NPS Response: Water quality monitoring at the Hite drinking water intake would take place under all alternatives addressed in the Final Environmental Impact Statement.

The water quality monitoring program would be directed by the Technical Advisory Committee, formed in 1996 to protect Lake Powell's water quality. The plan would ensure that water quality complies with State regulations and criteria and is consistent with requirements of the Clean Water Act.

The drinking water intake at Glen Canyon Dam, which serves the town of Page, Arizona, is under the jurisdiction of the Bureau of Reclamation. The National Park Service has no authority to access this site to obtain water quality samples. Potable water obtained from Lake Powell is tested after treatment at both the Hite and Page water treatment plants. The localities are responsible for the final quality of the drinking water, in addition to the State requirements for the quality of the drinking water source. The "Water Quality" section in the "Affected Environment" chapter of the Final Environmental Impact Statement has been revised to include additional information regarding the drinking water intakes at Hite and Page.

33. The EPA questioned the presence of a "rainbow sheen" in the marinas and whether this was a violation of Utah Water Quality Standards (R317-2, Utah Administrative Code).

NPS Response: The Utah Department of Environmental Protection, Water Quality Division, was contacted for interpretation of Water Quality Standard R317-2. The term "oil scum" is not intended to equate to the "rainbow sheen" commonly seen on water surfaces at fueling stations and marinas. Although these sheens could be considered minor violations, they are generally localized and transient and therefore not considered a significant enough concern to warrant pursuit of a violation by either state. The sheen itself was not tested during water quality sampling for this assessment. Suggestions regarding

sampling locations and techniques would be incorporated into the water quality monitoring program proposed under the modified preferred alternative B in the Final Environmental Impact Statement. Recognizing that the presence of the sheen does indicate degraded water quality, the text in the Final Environmental Impact Statement has been changed to acknowledge temporary, localized degradation of water quality. Because the sheen results from combined marina and fueling activities, it was not possible to determine the specific PWC related contribution to this transient water quality issue.

The modified preferred alternative B in the Final Environmental Impact Statement includes mitigation measures to further protect park waters. Under the modified preferred alternative, PWC used in the recreation area after 2012 will be 100% compliant with the EPA 2006 emission standards for the manufacturing of gasoline marine engines, further reducing petroleum-related pollution. Based on the analysis presented, the National Park Service finds that the modified preferred alternative B will not result in an impairment of park water quality.

34. The EPA suggests that the analysis should address whether PWC use and fueling of vessels in marinas that result in a visible sheen or numeric concentrations would be in violation of Arizona water quality standards. If so, the water quality effects should be designated “major” rather than “negligible to minor”.

NPS Response: Lake Powell is an Arizona Tier II water body, and existing water quality “shall be maintained and protected. Water quality shall not be lowered to a level that does not comply with applicable water quality standards” (Arizona Administrative Code R18-11-107; see the “Water Quality” section, “Affected Environment” chapter). The National Park Service water quality sampling performed at Lake Powell did not show that

any Arizona water quality criteria were exceeded. As shown in Table 9 in the "Affected Environment" chapter, Arizona standards are not as stringent as those for Utah, with the exception of naphthalene and these standards are not violated. There would be no violation of Arizona water quality standards set for the designated uses of Lake Powell under any of the alternatives analyzed in this assessment. The EIS text has been edited in the "Water Quality" section of the "Environmental Consequenses" chapter to clearly state this finding.

The modified preferred alternative B in the Final Environmental Impact Statement includes mitigation measures to further protect water quality in the recreation area. The modified preferred alternative will provide an important step toward substantially reducing petroleum-related pollution by requiring all PWC used in the recreation area after 2012 to be 100% compliant with the EPA 2006 emissions standards for the manufacturing of gasoline marine engines.

35. One commenter stated that cumulative effects of the build up of oil and gasoline in the lake over time were ignored. The estimated emission into the lake assumed that on a daily basis, 100% of hydrocarbon emissions volatilized daily. The emissions from PWC contain oil, and oil does not volatilize completely.

NPS Response: The commenter has misinterpreted the DEIS. NPS never stated that 100% of the hydrocarbon emissions volatized daily. Although most polycyclic aromatic hydrocarbon components are volatile, some of these hydro pollutants do accumulate in the water column. The text has been changed and is included in the Final Environmental Impact Statement to provide more information on volatility and on the

evaporation and half-life rates applicable to the waters of Lake Powell. Detailed discussions on this issue can be found in the Final Environmental Impact.

36. One commenter stated that the analysis lacks a description of a detailed long-term monitoring plan to ensure evaluation of impacts on the aquatic system.

NPS Response: Modified alternatives A and B addressed in the Final Environmental Impact Statement include implementation of a water quality monitoring project. The project will be directed at developing a detailed long-term monitoring plan by the Technical Advisory Committee, formed in 1996 to protect Lake Powell's water quality. The plan will ensure that water quality complies with State regulations and criteria and is consistent with requirements of the Clean Water Act. The monitoring project will benefit from the findings of two recently completed studies on the chemical content of lake waters and sediment in the Colorado River inflow area and three side canyons. An additional study on the dynamics of sediment re-suspension in the Colorado River inflow is currently underway. Funding is also being sought for additional studies in the San Juan and Escalante River inflow areas. The monitoring project will include hydrocarbon content of sediments and PAH content of lake waters. Benthic population studies may be included, if deemed necessary by the Technical Advisory Committee. The results of the monitoring project will be used to guide management decisions for any impacts on the aquatic system on Lake Powell.

37. One commenter requested that the water quality section of the Final Environmental Impact Statement should clearly state whether activities regulated by the National Park Service are violating, or have the potential to violate, State-adopted, EPA-approved water quality standards under the Federal Clean Water Act.

NPS Response: We agree with the comment and the FEIS was revised to show that there are no violations or potential violations of State or Federal standards. The Utah Department of Environmental Quality, Water Quality Division, was contacted for clarification of the State's assessment of Lake Powell water quality. The division reported that the State has no concerns with regard to the 1.7 µg/L and 3.43 µg/L benzene concentration obtained near Bullfrog Marina during water quality testing. The drinking water intake near Hite Marina is approximately 0.25 mile upstream of the marina, and it is unlikely that gasoline components from the marina would migrate in this direction. Hite is also a smaller marina than Bullfrog, with much less boat traffic and fueling activities. Because of current water levels, Hite Marina is not currently operating. Water levels will need to increase significantly in Lake Powell before Hite Marina can return to full operation. In addition, the intake floats at approximately 12 feet below the water surface. Benzene is lighter than water, highly volatile, and has a half-life of approximately five hours. There are no water quality concerns by the State of Arizona since no drinking water is extracted from Lake Powell in Arizona.

The Final Environmental Impact Statement proposes a water quality monitoring program for modified alternatives A and B. This plan is outlined in responses to "General Comments" above.

The "Water Quality" section in the "Affected Environment" chapter has been changed in the Final Environmental Impact Statement to include new information on the drinking water intakes and on the jurisdiction over the two sites.

38. One commenter stated that the assessment of water quality is based on water column samples taken at 0.5 and 3 meter depths. Given that most constituents from

watercraft exhaust or refueling spills will float on the water's surface, it would seem logical to collect water samples at the water's surface rather than 0.5 meters below to determine compliance with standards.

NPS Response: The objective of the sampling effort was to collect representative data that would be most useful for comparison to Clean Water Act water-quality criteria and standards, especially those promulgated for the protection of drinking water supplies and aquatic life. To meet these objectives, sample locations that represented mixed and homogeneous conditions after considering watercraft propeller and wake affects and naturally occurring wave action would yield date representative for these purposes. To determine appropriate sampling depths that would meet these criteria, the most recent body of literature on water pollution caused by motorized watercraft was reviewed and researchers in the field were sought and interviewed.

Through that review and those interviews the NPS determined that there is evidence that, for motorized vessel-expelled PAHs, completely mixed conditions occur at 3m depth. PAH concentrations that are found in completely mixed conditions are more representative of bioavailable concentrations for aquatic life and therefore more comparable to water quality criteria.

Additionally, concentrations of BTEX in particular were assumed to be much more variable at the surface than 0.5m below it and, therefore, concentrations at the water surface would be less representative. The assumption here was that due to vessel and wave action, mixing would be greater just below the surface rather than right at it. Previous research found that, at least at near-shore locations, the 0.5m depth was a representative depth when taking this into consideration.

Lastly, most studies and long-term monitoring efforts conducted elsewhere were designed with sampling stations at 3m and/or 0.5 depths, thus allowing the Lake Powell results to be compared to results in these other water bodies.

39. One commenter stated that the numbers used to predict loading on the lake for future years assume a zero growth condition. A zero growth assumption is not realistic for the boating industry or Glen Canyon National Recreation Area. Glen Canyon National Recreation Area has plans to continue to develop projects that support the boating industry.

NPS Response: New estimates for changes in boat uses at Glen Canyon have been generated for the Final Environmental Impact Statement based on trends for National Park Service units with PWC usage throughout the United States. Over the last 10 years Glen Canyon NRA has experienced a decrease in boating use at about –2.6%. In order to give a variety of growth scenarios for the future, the effects of three differing growth scenarios are now described in the analysis: (1) annual increase in use of 2% per year, (2) no change (flat rate), and (3) annual decrease in use of 2% per year. For a complete explanation of the change in use, see the "Visitor Use and Experience" section in the "Affected Environment" chapter in the Final Environmental Impact Statement.

40. One commenter stated that there was no conclusion as to how much of the water pollution could be attributed to PWC.

NPS Response: The conclusion on PWC hydrocarbon contribution relative to all watercraft is presented in the "Environmental Consequences" chapter of the Draft and Final Environmental Impact Statements. Using the methodology developed by the National Park Service Division of Environmental Quality (Bransom) and assumptions of the relative

polluting capabilities of PWCs and other motorized vessels, PWC were estimated to contribute 50% of all hydrocarbon pollution to the lake.

41. One commenter performed calculations to determine the PWC contribution to lake pollution. Assuming PWC engines have four times the emission displacement into the water of other boats, a total contribution of 21% was obtained versus the NPS assumption of 50%.

NPS Response: Commenter's assumptions about engine sizes do not reflect the boating distribution data gathered for Lake Mead which was used as an estimate of use by engine type on Lake Powell. The "Methodology and Assumptions" section in the "Environmental Consequences" chapter of the Draft and Final Environmental Impact Statements explains the boat distribution and clearly shows the greatest percent of boat hours are generated by "stern-drive" or inboard/outboard engines. These engines are often comparable in size to automobile engines, not one-quarter the size of the typical PWC engine. Because the commenter did not consider the distribution of engine types in the recreation area, we believe that their conclusion that PWC contribute only 21% of the pollution into the lake is incorrect. Furthermore, the methodology used in the EIS analysis differed from the commenter's calculation in that the EIS methodology considered the pollution contribution to the lake by engine type (carbureted, two-stroke direct-injected, and four-stroke). The assumptions in the EIS methodology are that four-stroke and clean technology two-stroke engines deliver to the water 10% of the hydrocarbons of carbureted two-stroke engines.

42. One commenter suggested calculating two-stroke engine pollution contribution using fuel and engine oil purchases made at the lake's marinas.

NPS Response: Many boaters buy fuel and oil at locations other than the marina, and using the marina sales would not capture the total amount of petroleum products used on the lake by two-stroke or other engine types.

Comments related to Air Quality

43. Commenters stated that the National Park Service did not consider that the changeover to four-stroke and two-stroke direct injection PWC engines to meet the requirements of the EPA 2006 and CARB 2008 emission standards is occurring much more rapidly than EPA and National Park Service has estimated. Amounts of emissions at Glen Canyon will accordingly continue to decline rapidly, achieving a reduction of approximately 90% by 2012.

NPS Response: All alternatives use the rate of conversion of the engines from carbureted two-stroke to clean engines consistent with the EPA rule, "Final Rule for New Gasoline Spark-Ignition Marine Engines" (EPA 1996). The National Park Service used the EPA data where it was assumed that 21.6% of the carbureted two-stroke engines in use in 1998 would be replaced by 2004 and that 58.4% would be replaced by 2012. The commenter's opinion is principally based on confidential, proprietary PWC sales and forecast data prepared by PWC manufacturers. This proprietary data was not supplied with the comment and, therefore, was not available to the National Park Service.

The commenter states that the data indicates that the conversion of two-stoke carbureted PWC models to cleaner direct-injection engines is occurring more rapidly than anticipated in the 1996 EPA analysis of the effects of the conversion rule. While the National Park Service has no reason to doubt that PWC conversions and sales may be proceeding at a greater rate than forecast by the EPA, there is no survey or similar data

available at this time that indicates that the engine mix at Glen Canyon is proceeding at a faster or slower rate than the EPA forecast. Therefore, use of the EPA rates is considered appropriate in disclosing potential impacts on air quality. Under the modified preferred alternative B, PWC used in the recreation area after 2012 would be 100% compliant with the EPA 2006 emissions standards for the manufacturing of gasoline marine engines versus 58.4 percent estimated by EPA in 1996. The concessionaire is currently replacing any discontinued PWC with a new model that meets or exceeds the EPA 2006 standards. It is estimated that the concessionaire fleet would consist of PWCs meeting the EPA 2006 standards within the next three years.

PWCs rented outside the recreation area for use in the recreation area will also have to meet the EPA emission standards after 2012. Entrance to the recreation area will require all PWC to have EPA 2006 emission certification prior to entering the park.

44. One commenter expressed concern that PWC emissions are declining faster than forecasted by the EPA. The existing fleet of PWC has achieved a 25% reduction compared to hydrocarbon plus nitrogen oxides ($HC + NO_x$) emission levels before the EPA regulation became effective, and will achieve reductions greater than 80% by 2012.

NPS Response: The comment is principally based on two assumptions made by the commenter. The first is based on confidential, proprietary information regarding PWC sales and forecast data prepared by PWC manufacturers. No supporting data was supplied with the comment. The commenter states that the data indicates that the conversion of PWC models to cleaner engines is occurring more rapidly than anticipated in the 1996 EPA analysis of the effects of the conversion rule. While the National Park Service has seen that local rentals of PWC have exceeded estimates for conversions and are

proceeding at a greater rate than forecast by the EPA, there is no sales data available at this time indicating the engine conversion at Glen Canyon is proceeding at a faster or slower rate than the EPA forecast. Therefore, use of the EPA rates is considered appropriate, and use of an accelerated rate may be considered speculative without additional supporting data.

The second assumption by the commenter is that 75% of the non-rental PWC at Glen Canyon will have engines that comply with the CARB conversion rule for all years, which requires that marine engine emission reductions targeted by the EPA for 2006 be achieved in California by 2001. The California rule then requires further emission reductions by 2004 and 2008 (Title 13, California Code of Regulations, sections 2440–2448). The commenter assumes that 50% of the PWC users at Glen Canyon will be from California and all will have CARB-compliant watercraft, and that, because of manufacturing and sales efficiencies outside of California, an additional 25% of the Glen Canyon PWC users will have CARB-compliant watercraft. The National Park Service concurs that many watercraft users at Glen Canyon have California-registered PWC, and that they will meet the CARB standards. However, there is no data relative to PWC at Glen Canyon to confirm the 75% figure assumed by the commenter. The National Park Service emission calculations are conservative only in the sense that they do not specifically account for watercraft that have already been or will be converted to meet CARB standards. Under the modified preferred alternative B, PWC used in the recreation area after 2012 would be 100% compliant with the EPA 2006 emissions standards for the manufacturing of gasoline marine engines.

45. Continued PWC use on Lake Powell under the proposed rule will not pose any adverse health risks for park visitors under even the "worst case" airborne PAH concentrations that could theoretically be generated by the vessels.

NPS Response: The commenter submitted an analysis of PAH emissions at Glen Canyon to support the comment. The commenter's analysis uses many conservative assumptions and a pollutant dispersion model to conclude that PAH exposure to PWC users from PWC PAH emissions would be less than one thousandth of one percent (<0.001%) of an Occupational Safety & Health Administration (OSHA) limit for PAH exposure. Shoreline exposure would be even lower. OSHA published the limit as part of a discussion of safety and health related to coal tar pitch volatiles. The limit is for total PAH, and the comment in reference to OSHA for limits of coal tar volatiles does not apply in the context of the Glen Canyon PWC rule-making discussion. In addition, another relevant study concluded that there are some health effects associated with PAH emissions (see Environmental and Occupational Exposure to Toxic Air Pollutants from Winter Snowmobile Use in Yellowstone National Park, Kado et al. 2001). Therefore, the National Park Service cannot support a conclusion, as the commenter suggests, that PWC use at Glen Canyon would pose no adverse health risks from toxic air pollutant emissions.

46. One commenter believes that the analysis reference to moderate levels of air quality impacts from HC, NO_x, and carbon monoxide (CO) emissions associated with PWC use is incorrect and potentially misleading. The commenter believes that these emissions, even under the "worst case" scenario, would not pose a health risk for park visitors.

NPS Response: Emission levels shown in the Air Quality analysis tables in the "Environmental Consequences" chapter are not directly comparable with the emission levels submitted by the commenter, because the National Park Service Air Quality Division calculates emissions on an annual basis, and the commenter's calculations are for an average boating day during the boating season. Some assumptions made for National Park Service calculations are more conservative than those used for the commenter's calculations. The National Park Service assumed that the conversions from carbureted two-stroke engines to cleaner engines would occur at the rate forecast by the EPA. Based on the National Park Service model (presented in the tables as tons per year of estimated hydrocarbon and nitrogen oxide emissions for all alternatives), a 21.6% conversion is assumed from 1998 levels by 2004 and a 58.4% conversion by 2012. The commenter assumes a faster conversion. The commenter assumes that emissions would be reduced because a significant portion of PWC would be cleaner than EPA requirements due to compliance with the more restrictive California requirements. There is no data relative to PWC at Glen Canyon to confirm the 75% figure that is assumed by the commenter. The National Park Service emission calculations are conservative only in the sense that they do not specifically account for watercraft that have already been or will be converted to meet either CARB or EPA standards. Under the modified preferred alternative B, PWC used in the recreation area after 2012 would be 100% compliant with the EPA 2006 emissions standards for the manufacturing of gasoline marine engines, which would result in a substantial reduction in emissions. Using the EPA forecast rate of emission reductions in the National Park Service air quality emissions model, and assuming a 2% annual visitor growth rate, the PWC emissions associated with the modified preferred alternative would

be up to 365 tons per year of HC + NO_x by 2012 and 2,955 tons per year of CO, which is considered by the National Park Service to be a moderate adverse effect.

47. One commenter stated the National Park Service analysis does not reflect the increase in nitrogen oxides emissions that are likely with the conversion to more four-stroke engines.

NPS Response: The Draft and Final Environmental Impact Statements do note in the "Air Quality" section of the "Environmental Consequences" chapter that nitrogen oxide emissions will increase with implementation of the EPA 1996 rule and the conversion to 4-strokes. However, there would be sizeable reductions in emissions such as VOC, HC, PM and CO and overall air quality in the recreation area would continue to be below national ambient air quality standards.

48. One commenter stated the National Park Service analysis does not reflect CARB research which found that four-stroke PWC emit more carbon monoxide (CO) pollution than do conventional two-stroke machines. The commenter states that the National Park Service should be concerned with any technology that emits large amounts of this pollution given the recent spike in carbon monoxide-related deaths at Glen Canyon National Recreation Area.

NPS Response: The CARB 2001 study, Outboard Engines and PWC Emissions to Air and Water: A Laboratory Study found that CO emissions from four-stroke outboard and PWC engines tested were lower than conventional two-stroke engines. The CARB results indicate that the carbureted two-stroke PWC engine tested emitted nearly three times the amount of carbon monoxide than did the four-stroke engine. Results also indicated that the four-stroke outboard engine emitted lower levels of carbon monoxide

than two-stroke carbureted outboard engines with exception of the two-stroke 90 hp direct-injected engine, which emitted lower levels than the four-stroke engine. In addition, the EPA emission test data from outboard marine engines indicates that carbon monoxide emissions from four-stroke engines are lower than conventional two-stroke technology engines (EPA 1996). Although the EPA final regulation on emission standards does not contain standards for carbon monoxide, it is expected that the engine technology changes which would be used to meet the EPA standards would result in some modest carbon monoxide reductions (EPA 1996). Under the modified preferred alternative B, PWC used in the recreation area after 2012 will be required to be 100% compliant with the EPA 2006 emission standards for the manufacturing of gasoline marine engines, which would result in a substantial reduction in total emissions. Although there would not be a significant reduction in carbon monoxide emissions over the next ten years, based on the National Park Service model, they would be reduced from 3,168 to 2,955 tons per year assuming a 2% annual increase in visitor use.

Carbon monoxide related fatalities that have occurred in the recreation area have been a result of exposure to extremely high levels of carbon monoxide in confined, poorly ventilated spaces such as under a boat swimming platform or near exhaust ports. The levels of carbon monoxide presented in the analysis represent carbon monoxide levels over the entire recreation area, dispersed in a large volume of air, and are based on year-long boating activity. There has only been one reported fatality caused by carbon monoxide poisoning at the recreation area involving a PWC. This individual died while being towed on his broken PWC behind a motorboat. Nationally, of the 701 boating fatalities reported

in 2000, five deaths were attributed to carbon monoxide. None of these deaths involved PWC.

The National Park Service is concerned about fatalities at Glen Canyon National Recreation Area related to carbon monoxide poisoning. The park has an active and aggressive campaign to inform visitors to the recreation area of the risk of carbon monoxide poisoning from exposure to boat generators, engines, and gas appliances. This safety information is provided to visitors at entrance gates, visitor centers, recreation area headquarters, and on the recreation area website.

49. One commenter asked the National Park Service to disclose the derivation of the 21% average engine load as an assumption in the methodology of the air quality analysis.

NPS Response: The assumption of an average engine load of 21% for PWC was based on the activity data used in the EPA NONROAD model.

50. One commenter expressed concern over the inconsistencies in the Draft Environmental Impact Statement regarding the volatilization of pollutants to the air and water. This commenter stated that the text should use the same percentage for how much and which pollutants volatize in both the air and water quality impacts sections. No estimate of the percent that volatilizes is given in the water quality section. In the air quality section it is stated that up to 30% of the fuel from PWC is unburned and is discharged as gaseous hydrocarbons (Draft Environmental Impact Statement, p. 181). The numbers should be consistent for the analysis.

NPS Response: The Draft Environmental Impact Statement incorrectly stated that 30% of the fuel is exhausted into the air. However, the Final Environmental Impact

Statement correctly states that up to one-third of the fuel delivered to the two-stroke carbureted PWC engine is unburned and discharged into the water instead of exhausted into the air. It is difficult to determine how much of the fuel is volatilized into the atmosphere. As stated in "Methodology and Assumptions" section under "Air Quality," many organic pollutants that are initially dissolved in the water volatilize to the atmosphere, especially if they have high vapor pressures, are lighter than water, and mixing occurs at the air/water interface. It is difficult to assess the specific evaporation rates of exhaust pollutants from PWC because the rates will differ according to the ratio of gas to oil used, by fuel brand, by engine, and operating conditions such as temperature and water aeration.

In 1994, the EPA released a public memorandum entitled "The Effects of Marine Engine Exhaust on Water Quality: Summary of Findings of Various Research Studies." This document summarizes 11 research papers and presents volatilization rates and dilution ratios for observable effects such as taste, odor, and generation of oil film.

At temperatures commonly found in Lake Powell during the summer boating season (77ºF–86ºF), 78–84% of the gasoline/oil mixture (50:1) for carbureted two-stroke engines would be evaporated from the water to the air in 1.2 hours. This EPA review also cites a study by the Boating Industrial Association (1974) that describes the two-stroke gas/oil mixture as having an 11-day half-life in still water (such as a laboratory tank) and a half-life of less than one day in open, aerated water (such as a lake). A description of the volatile nature of five gasoline constituents has been provided in the "Water Quality" section of the "Affected Environment" chapter.

51. One commenter requested that the Final Environmental Impact Statement include updated information on the July 2002 EPA proposed cleaner evaporative standards for PWC.

NPS Response: The text in the "Air Quality Methodology and Assumption" section of the "Environmental Consequences" chapter has been changed to include the proposed EPA evaporative standards.

52. One commenter argued that the National Park Service based its findings on recent studies suggesting that changing from two-stroke carbureted to two stroke direct injection PWC engines might increase PAH emissions. A study by Norman Y. Kado et al, Airborne Particle Emissions from two- and four-stroke Outboard Marine Engines: Polycyclic Aromatic Hydrocarbon and Bioassay Analysis, (hereinafter referred to as "Kado Study") quantified PAH concentrations in airborne particulate emissions. The Kado Study showed that the PAH emissions from the direct-injection two-stroke engines tested were greater than from carbureted two-stroke engines. The direct-injection two-stroke outboard engine used in that study was a 1999 model and represented very early technology, and the results of the study are not applicable to newer model direct-injection outboard engines, much less PWC engines.

NPS Response: The NPS disagrees with the commenters conclusions. In addition, because many older engines would still be allowed to operate at Lake Powell through 2012, the National Park Service assumes that there would be increased PAH emissions and the Kado Study is relevant. Also, a recent study dated 2003 by the Tahoe Regional Planning Agency (hereinafter referred to as "TRPA Study") compared the concentrations of PAH compounds released into the water and found that the two-stroke carbureted

outboard engine emitted lower PAH levels into the water than did the two-stroke direct-injected engine. The four-stroke carbureted outboard engine emitted the lowest PAH levels, as well as other gasoline-related contaminants into the water (TRPA Study dated 2003; CARB). So, while conversion of some carbureted two-stroke engines to direct-injection two-stroke engines would result in increased PAH emissions, the concurrent conversion to four-stroke engines would result in reduced PAH emissions. However, the two-stroke carbureted outboard engine emitted higher levels of benzene than the two-stroke direct-injected engine model (CARB). PWC engines follow the same patterns of emission rates as outboard engines (CARB). The TRPA Study confirms other findings regarding emissions into the water and does not substantially change National Park Service conclusions regarding water quality impacts.

According to the Kado Study the higher levels of PAHs from two-stroke direct-injection engines may be due to differences in the characteristics of combustion such as temperature, spray location or spray pattern of the fuel and oil, timing of fuel delivery, and high levels of unburned fuel and oil in the two-stroke direct inject engines.

As shown by the commenter, using Kado data, the combined PAH emissions of one direct-injection two-stroke engine and one four-stroke engine would be slightly less than the PAH emissions of the two carbureted two-stroke engines that would be replaced. Therefore, the increase or decrease of PAH emissions as carbureted two-stroke engines are converted to cleaner engine types would depend on the relative numbers of the types of cleaner engines. In addition, in speaking with local PWC businesses, the majority of newer PWC models being sold are four-stroke engines, not two-stroke direct-injection engines, but no specific data is available. The speculation of the mix of engine types would not

appreciably change National Park Service conclusions concerning PAH emissions made in the Final Environmental Impact Statement.

Comments related to Cultural Resources

53. One commenter stated that the National Park Service identifies a potential concern that the ability of PWC operators to access remote areas of Glen Canyon National Recreation Area unit could intrude on traditional tribal activities and make certain cultural sites vulnerable to trampling, looting, and vandalism. The analysis does not document any instances where these problems have occurred. Nor is there any reason to believe that PWC users are more likely to pose these concerns than canoeists, kayakers, hikers, or others who might access these same areas. Even so, alternative B proposes to prohibit PWC use in several areas to protect against potential adverse impacts on these resources.

NPS Response: Navajo practitioners conduct traditional activities as individuals, and generally do not share this information with others. Almost universally, American Indians are extremely reticent to share sensitive information about personal religious activities with the public. Out of respect for these traditional beliefs, and in keeping with various laws and mandates, the National Park Service does not include descriptions of specific traditional activities or their locations in a public document. For these reasons, Glen Canyon National Recreation Area does not have documentation of specific instances where PWC users have intruded on traditional activities by tribal practitioners. However, the National Park Service is aware of the potential for conflicts with visitor use along the shorelines, particularly in more isolated areas. The effects on cultural resources, including sacred sites within the recreation area used by Native Americans, as a result of nonmotorized use as well as other uses of the lake will be assessed under the lake

management plan. Even though the lake management plan is an element of alternative B, a separate NEPA assessment will be prepared to evaluate its effects.

54. One commenter stated that there is no legitimate reason for National Park Service to impose restrictions on PWC users only to protect cultural resources and activities from intrusion.

NPS Response: The plan was not designed to determine if PWC caused more damage to park resources than other boats or users, but rather, to determine if PWC use was consistent with Glen Canyon National Recreation Area's enabling legislation and management goals and objectives. An analysis was done on the management of PWC and with completion of the Final Environmental Impact Statement, the National Park Service is taking action to adopt special regulations to manage PWC use at Glen Canyon.

Comments related to Visitor Use and Experience

55. One commenter requested that the Final Environmental Impact Statement include a map that identifies the Natural Zone and the Recreation and Resource Utilization Zone in the analysis area, and include additional detail regarding the purposes and objectives for these two zones. The impact of each alternative on whether the Natural Zone qualifies for wilderness designation, as recommended in the last Management Plan, should be described in the document.

NPS Response: A map of Glen Canyon National Recreation Area's management zones has been added to the "Affected Environment" chapter of Final Environmental Impact Statement, along with an additional description of the zones' objectives. All of the Federal lands in the natural zone were proposed as wilderness in the General Management Plan in 1972.

56. Some commenters cited user conflicts. Specific incidents included conflicts between PWC users and kayakers, fishermen, and hikers. A few PWC supporters said these conflicts resulted from a minority of inconsiderate PWC operators and that we should regulate inappropriate behavior or enforce existing regulations rather than prohibit PWC use.

NPS Response: The modified preferred alternative B will restrict PWC use on portions of the Escalante, Colorado, Dirty Devil, and San Juan Rivers and implement a flat-wake zone for PWC on a portion of the Escalante River. Based on the best available information, the National Park Service will implement these restrictions on the rivers to reduce visitor conflicts with river rafters, fishermen, and backcountry hikers; promote visitor enjoyment; and ensure visitor safety.

The modified preferred alternative B also provides for a three-year pilot study to further evaluate PWC use areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated at that time. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C in the Draft and Final Environmental Impact Statements.

57. One commenter stated that the overall conclusions in the Draft Environmental Impact Statement and in the proposed rule regarding visitor perceptions of PWC were inconsistent with the data presented in the University of Minnesota study used in the analysis.

NPS Response: Conclusions of the Minnesota study (James 2000) were based on their professional analysis and statistical limitation of the data they collected. During the summer of 2000, the University of Minnesota conducted three on-site visitor surveys at

Glen Canyon National Recreation Area. This survey was followed by a mail-back questionnaire sent to visitors after their trip to the recreation area. The study focused on visitors using the resources, as well as looking specifically at the population of visitors who used and also those who did not use PWC during their visit to the area. The analysis of impacts on visitor use and experience presented in the Draft and Final Environmental Impact Statements was based on the Minnesota study visitor's perceptions of problems or conflicts with PWC.

Comments related to Wildlife and Wildlife Habitat

58. One commenter stated that PWC use and human activities associated with their use may not be any more disturbing to wildlife species than any other type of motorized or non-motorized watercraft. The commenter cites research by Dr. Rodgers whose studies have shown that PWC are no more likely to disturb wildlife than any other form of human interaction. PWC posed less of a disturbance than other vessel types. Dr. Rodgers' research clearly shows that there is no reason to differentiate PWC from motorized boating based on claims on wildlife disturbance.

NPS Response: The wildlife impact analysis completed for the Glen Canyon NRA considered a large body of technical information, including research findings of Dr. Rodgers, that addressed, observed and tested effects of PWC and other motorized watercraft use on various fish and wildlife species and to wildlife in general. Some of the available literature discussed effects to some wildlife species and not to other groups. Some of the available literature noted that PWC use was less or no more disruptive than other types of motorized or man-powered watercraft. A common theme in many of the research findings was that much of the wildlife effect depended on a complex of other

environmental variables not just the type of watercraft. The NPS considered all these findings in conducting an objective and balanced impact analysis. The literature results were used as appropriate within the physical and ecological conditions that prevail at Glen Canyon. It was concluded in the final EIS that alternatives A and B would have negligible to minor adverse affects on wildlife and wildlife habitat from noise, high-speed operations, habitat disturbance and exposure to fuel constituents. Continued PWC operation under these alternatives would not result in an impairment of wildlife, fish, or supporting habitat resources. These conclusions regarding wildlife impacts that were based on scientific literature and based on the environmental conditions present in Glen Canyon NRA are believed to be accurate and complete.

Comments related to Shoreline and Submerged Aquatic Vegetation

59. One commenter noted that the EIS identified the issue of potential concern that the beaching and landing of PWC could result in the trampling of shoreline vegetation. The comment refers to several other phrases in the text that discuss the affected environment and the indistinguishable cumulative effects of PWC use and other watercraft on shoreline or submerged aquatic vegetation.

NPS Response: Shoreline vegetation has been historically subjected to many sources of disturbance since the recreation area was created. The most important has been repeated inundation and desiccation as the reservoir level rises and falls. Other sources that have affected and would continue to affect shoreline vegetation include PWC operators, other watercraft operators and passengers, general visitors and livestock in some areas. The NPS believes that the incremental effect from PWC users on shoreline vegetation conditions would be indistinguishable from other visitor-induced effects. Foot

traffic from all visitor activities would occur on shorelines and lake beaches in accessible shoreline areas. Past, current and future PWC use would not produce any noticeable effect on submerged aquatic, riparian and wetland vegetation. Therefore, cumulative effects would be negligible.

Comments related to Natural Soundscape

60. Several commenters noted that PWC were being singled out for restrictions without regard to other sources of noise, including "muscle" boats, other motorboats, loud music, parties, and illegal fireworks.

NPS Response: The Final Environmental Impact Statement and final rule were not designed to determine if PWC caused more environmental damage to park resources than other boats, but rather, to determine if PWC use was consistent with Glen Canyon National Recreation Area's enabling legislation and management goals and objectives of the park. Depending upon the results of the Final Environmental Impact Statement, the National Park Service could, as it has in this rulemaking, take action to adopt special regulations to manage PWC use at Glen Canyon, or could have chosen to discontinue PWC use. The alternatives listed were based upon the best information available. Other resource impacts and issues will be addressed through other planning documents and regulations.

61. Several commenters expressed a concern that the analysis did not address the fluctuations of sound that PWC make compared to other motorized watercraft. Specifically, the distinctive pitch variation may have different effects on humans and other species and is more annoying or irritating than the more constant sounds associated with other boats.

NPS Response: The pitch variations associated with PWC and the noise differences between PWC and motorboats are acknowledged under the "Soundscapes" section in the "Affected Environment" chapter of the Draft and Final Environmental Impact Statements. PWC noise does fluctuate as a result of typical operation, but the noise intensity levels are not typically in violation of the National Park Service noise standard. The suggestion that pitch variations may have different effects on humans and other species, and that the variation is more annoying or irritating, was incorporated in the analysis and contributes to the "minor to moderate" adverse impact determination.

62. One commenter stated that wilderness management in the Natural Zone is ignored even though it is stated as a goal in Glen Canyon National Recreation Area's general management plan. They further state that only alternative C which bans PWC correlates satisfactorily with the values of wilderness management.

NPS Response: The noise impacts on the Natural Zone were determined to be adverse and ranged from minor to moderate within a mile of the shoreline (refer to the noise analysis in the "Soundscapes" section of the "Environmental Consequences" chapter).

The Final Environmental Impact Statement states that PWC sound impacts wilderness values of solitude and natural quiet because sound carries beyond the shoreline and is heard at some distance within the Natural Zone. The sound is heard up to a maximum of 2 miles from the source over a flat surface, but the topography surrounding Lake Powell is not flat. Assuming that a natural barrier to the sound would exist where there is an elevation change of 50 feet (approximate height of a five-story building), approximately 16,000 acres would be affected (between 3,700 feet to 3,750 feet in

elevation). This equals 2.3% of the Natural Zone (668,670 acres). Time of day and season of use would also reduce the level of noise in the Natural Zone because the noise would not be continuous, would be encountered only during daylight hours, and would be minimal between October and May.

Although noise does intrude on desired wilderness and Natural Zone soundscape values, the inescapable juxtaposition of the Natural Zone and the Recreation and Resource Utilization Zone make it impossible to avoid all adverse impacts on the Natural Zone/wilderness soundscape. As shown above, only 2.3% of the Natural Zone's area would be affected, and those soundscape effects would be offset even further by diurnal/nocturnal and seasonal reductions in watercraft noise.

There is a potential conflict in the management objectives between the Recreation and Resource Utilization Zone and the Natural Zone that is extremely difficult to avoid because the zones are adjacent to each other. However, the percentage of the Natural Zone that is adversely affected by PWC noise, as shown in the preceding paragraph, is small. The noise generated by watercraft in the Recreation and Resource Utilization Zone, including PWC, is consistent with Glen Canyon National Recreation Area's enabling legislation "to provide for public outdoor recreation use and enjoyment of Lake Powell and the lands adjacent thereto."

The modified preferred alternative B provides for a three-year pilot study to further evaluate PWC use areas. Potential restrictions of PWC use in other locations of the recreation area will be evaluated during the pilot study. The purpose of the pilot study and a description of how it will be implemented are provided in appendix C of the Final EIS. In addition, the preparation of a lake management plan, which was included in all alternatives

in the Final Environmental Impact Statement, will provide an opportunity for the National Park Service to further evaluate impacts of all lake users on all resources, including the soundscape.

63. One commenter asked why if noise generated by watercraft is consistent with the park purposes is soundscape being addressed as a reason to manage PWC.

NPS Response: The "Purpose of and Need for Action" chapter in the Draft and Final Environmental Impact Statements states that the overall objective for EIS and rulemaking is to evaluate a range of alternatives and strategies to determine the appropriateness of PWC use at Glen Canyon NRA with the goal of ensuring protection of recreational and resource values. This objective was derived from the enabling legislation for Glen Canyon National Recreation Area. Soundscape was one of the issues that was evaluated in order to determine appropriateness of PWC use. As a result of the evaluation, the NPS determined that no additional measures are required, beyond exist NPS noise regulations, to manage noise from PWC.

64. One commenter stated that since 1998, the PWC companies have reduced engine sound levels by up to 70% and have introduced design changes to not only reduce engine sound intensity, but to reduce the sound pitch that some claim to be annoying.

NPS Response: The National Park Service appreciates the information regarding new noise suppression designs being used by some PWC manufacturers. The Final Environmental Impact Statement refers to the potential noise abatement factors and acknowledges that future designs may mitigate sound impacts (see the "Affected Environment" chapter).

65. One commenter stated that the "promise" of quieter PWC by the PWC companies is no reason to approve PWC use at the recreation area.

NPS Response: The National Park Service has recognized that some PWC manufacturers are developing new noise suppression designs for new PWC. The industry's conversion to the four-stroke technology and the use of resonators is reducing the noise. Manufacturers are using noise absorbing foam and rubber padding in the construction of PWC. Consequently, the newer technology used in PWC construction is addressing noise concerns. The Final Environmental Impact Statement refers to the potential noise abatement factors and acknowledges that future designs may mitigate sound impacts (see the "Affected Environment" chapter).

The Final Environmental Impact Statement and final rule were designed to determine if PWC use was consistent with Glen Canyon National Recreation Area's enabling legislation and management goals and objectives. With completion of the Final Environmental Impact Statement, the National Park Service could, as it has in this rulemaking, take action to adopt special regulations to manage PWC use at Glen Canyon, or could have chosen to discontinue PWC use.

Drafting Information

The primary authors of this regulation were Suzy Schulman, Environmental Specialist, Glen Canyon NRA; Brian Wright, Outdoor Recreation Planner, Glen Canyon NRA; Sarah Bransom, Environmental Quality Division, National Park Service; Kym Hall, Regulations Program Manager, National Park Service, and Michael Tiernan, DOI Solicitor's Office.

Compliance with Other Laws

Regulatory Planning and Review (Executive Order 12866)

This document is a significant rule and has been reviewed by the Office of Management and Budget under Executive Order 12866.

(1) This rule will not have an effect of $100 million or more on the economy. It will not adversely affect in a material way the economy, productivity, competition, jobs, environment, public health or safety, or State, local, or tribal governments or communities. This determination is based upon the findings in a report prepared by the National Park Service entitled "Economic Analysis of PWC Regulations in Glen Canyon National Recreation Area" (Law Engineering and Environmental Services, Inc., 2002). The focus of this study was to document the impact of this rule on a variety of small entities including PWC dealerships and repair shops, PWC rental business, and other local businesses that provide services to PWC users. The Economic Analysis may be viewed on the Glen Canyon Web site at http://www.nps.gov/glca.

This rule will continue PWC use with restrictions in some narrow canyon areas and other management restrictions. Some localized ecosystem protection and noise reduction benefits are anticipated. However, because the vast majority of Lake Powell, including the most popular areas for PWC use, will remain open to PWC use under this rule, the NPS anticipates no significant effects on the visiting public or local businesses.

If this rule was not instituted, PWC use would be completely banned under the no-action alternative, affecting the approximately 40 percent of visitors that use PWC. Maintaining PWC use in GLCA under this rule will result in an estimated increase in producer surplus (a measure closely related to business profit) in the local community of between $1,232,800 and $12,304,300 annually relative to baseline conditions (where

PWC would be banned). The economic effect on the members of the visiting public that do not use PWC was not quantified due to limited data availability; however, the 40 percent of visitors that currently use PWC will regain all the consumer surplus value they receive from PWC use in GLCA. Consumer surplus gains to PWC users of continued access to GLCA are estimated to be between $9,806,600 and $20,166,400 annually. Beneficiaries of the no-action alternative would include the remaining portion of visitors that do not use PWC. Additionally, "nonusers" may significantly benefit from knowing that resources in the National Recreation Area will be better protected into the future.

Over a ten-year horizon, the present value of the gains is estimated to be $86.9 million to $155.3 million in consumer surplus and $10.9 million to $94.7 million in producer surplus using a 3 percent discount rate. This suggests the total gain in consumer and producer surplus from this rule relative to the baseline is $97.8 million to $250.0 million using a 3 percent discount rate. Losses to non-PWC users have not been quantified due to insufficient data. A 3 percent discount rate is widely recognized in the economics literature and Federal rulemakings as an appropriate discount rate for valuing natural amenities and other non-market resources and services. When discounted at 7 percent per year (OMB Circular A-94), the present value of the gain in consumer surplus is estimated to be $68.5 million to $122.5 million and the present value of the gain in producer surplus is estimated to be $8.6 million to $74.7 million. In this case, the total gain in consumer and producer surplus relative to baseline conditions is $77.1 million to $197.2 million, not including unquantified losses to non-PWC users.

This analysis clearly indicates that this rule is expected to avoid significant losses to local business. However, the net effect of this rule on the visiting public and nonusers has not been quantitatively determined.

(2) This rule will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency. Actions taken under this rule will not interfere with other agencies or local government plans, policies, or controls. This is an agency specific rule.

(3) This rule does not alter the budgetary effects of entitlements, grants, user fees, or loan programs or the rights or obligations of their recipients. This rule will have no effects on entitlements, grants, user fees, or loan programs or the rights or obligations of their recipients. No grants or other forms of monetary supplements are involved.

(4) This rule raises novel legal or policy issues. This rule is among the first of its kind for managing PWC use in National Park Units. The National Park Service published general regulations (36 CFR 3.24) in March 2000, requiring individual park areas to adopt special regulations to authorize PWC use. The implementation of the requirements of the general regulation continues to generate interest and discussion from the public concerning the overall effect of authorizing PWC use and National Park Service policy and park management.

Regulatory Flexibility Act

The Department of the Interior certifies that this document will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.) based on a report entitled Economic Analysis of PWC Regulations in Glen Canyon National Recreation Area (Law Engineering and

Environmental Services, Inc. 2002). The focus of this study was to document the impact of this rule on two types of small entities, PWC dealerships and PWC rental outlets. This report found that there was no potential loss for these types of businesses as a result of this rule since PWC use would remain substantially the same as it has been over the last several years.

Small Business Regulatory Enforcement Fairness Act (SBREFA)

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. The National Park Service has completed an economic analysis to make this determination. This rule:

a. Does not have an annual effect on the economy of $100 million or more.

b. Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

c. Does not have a significant adverse effect on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

Unfunded Mandates Reform Act

This rule does not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than $100 million per year. The rule does not have a significant or unique effect on State, local or tribal governments or the private sector. This rule is an agency specific rule and imposes no other requirements on other agencies, governments, or the private sector.

Takings (Executive Order 12630)

In accordance with Executive Order 12630, the rule does not have significant takings implications. A taking implication assessment is not required. No taking of personal property will occur as a result of this rule.

Federalism (Executive Order 13132)

In accordance with Executive Order 13132, the rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment. This proposed rule only affects use of NPS administered lands and waters. It has no outside effects on other areas by allowing PWC use in specific areas of the park.

Civil Justice Reform (Executive Order 12988)

In accordance with Executive Order 12988, the Office of the Solicitor has determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order.

Paperwork Reduction Act

This regulation does not require an information collection from 10 or more parties and a submission under the Paperwork Reduction Act is not required. An OMB form 83-I is not required.

National Environmental Policy Act

The National Park Service has analyzed this rule in accordance with the criteria of the National Environmental Policy Act and has prepared an Environmental Impact Statement (EIS). The draft EIS was made available for public review and comment on September 13, 2002, (67 FR 58071), and the Final Environmental Impact Statement (FEIS) was made available to the public on May 16, 2003 (68 FR 26645). A copy of the FEIS is available on the Glen Canyon National Recreation Area Web page at

http://www.nps.gov/glca/plan.htm, at regional libraries, or a copy may be obtained by contacting the Superintendent, Glen Canyon National Recreation Area.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government to Government Relations with Native American Tribal Governments" (59 FR 22951) and 512 DM 2, the National Park Service has evaluated potential effects on federally recognized Indian tribes and have determined that there are no potential effects.

During May 2002, the NPS consulted with tribes in the surrounding area in writing and/or in person about the development of this rule and the supporting Environmental Impact Statement. Those tribes include the Hopi, Navajo, San Juan Southern Paiute, and Kaibab Paiute Tribes as well as several tribal historic preservation programs and cultural and natural resources divisions of the tribes. None of the tribes have expressed concern or dissent with the planning process or development of the alternatives for the EIS or this rule.

Administrative Procedure Act

This final rule is effective upon publication in the Federal Register. In accordance with the Administrative Procedure Act, specifically, 5 U.S.C. 553(d)(1), this rule, 36 CFR 7.70(g), is exempt from the requirement of publication of a substantive rule not less than 30 days before its effective date.

As discussed in this preamble, the final rule is a part 7 special regulation for Glen Canyon National Recreation Area that relieves the restrictions imposed by the general regulation, 36 CFR 3.24. The general regulation, 36 CFR 3.24, prohibits the use of PWC in units of the national park system unless an individual park area has designated the use

of PWC by adopting a part 7 special regulation. The proposed rule was published in the Federal Register (68 FR 2466) on January 17, 2003, with a 60-day period for notice and comment consistent with the requirements of 5 U.S.C. 553(b). The Administrative Procedure Act, pursuant to the exception in paragraph (d)(1), waives the section 553(d) 30-day waiting period when the published rule "grants or recognizes an exemption or relieves a restriction." In this rule the NPS is authorizing the use of PWCs, which is otherwise prohibited by 36 CFR 3.24. As a result, the 30-day waiting period before the effective date does not apply to the Glen Canyon National Recreation Area final rule.

The Attorney General's Manual on the Administrative Procedure Act explained that the "reason for this exception would appear to be that the persons affected by such rules are benefited by them and therefore need no time to conform their conduct so as to avoid the legal consequences of violation. The fact that an interested person may object to such issuance, amendment, or repeal of a rule does not change the character of the rule as being one 'granting or recognizing exemption or relieving restriction,' thereby exempting it from the thirty-day requirement." This rule is within the scope of the exception as described by the Attorney General's Manual and the 30-day waiting period should be waived. See also, Independent U.S. Tanker Owners Committee v. Skinner, 884 F.2d 587 (DC Cir. 1989). In this case, the court found that paragraph (d)(1) is a statutory exception that applies automatically for substantive rules that relieves a restriction and does not require any justification to be made by the agency. "In sum, the good cause exception must be invoked and justified; the paragraph (d)(1) exception applies automatically" (884 F.2d at 591). The facts are that Glen Canyon National Recreation Area is promulgating this special regulation for the purpose of relieving the restriction,

prohibition of PWC use, imposed by 36 CFR 3.24 and therefore, the paragraph (d)(1) exception applies to this rule.

In accordance with the Administrative Procedure Act, this rule is also excepted from the 30-day waiting period by the "good cause" exception in 5 U.S.C. 553(d)(3) and is effective upon publication in the Federal Register. As discussed above, the purpose of this rule is to comply with 36 CFR 3.24 requirement for authorizing PWC use in park areas by promulgating a special regulation. "The legislative history of the APA reveals that the purpose for deferring the effectiveness of a rule under section 553(d) was 'to afford persons affected a reasonable time to prepare for the effective date of a rule or rules or to take other action which the issuance may prompt.' S.Rep. No. 752, 79th Cong., 1st Sess.15 (1946); H.R. Rep. No. 1980, 79th Cong., 2d Sess. 25 (1946)." United States v. Gavrilovic, 551 F.2d 1099, 1104 (8th Cir. 1977). The persons affected by this rule are PWC users and delaying the implementation of this rule for 30 days will not benefit them; but instead will be counterproductive by denying them, for an additional 30 days, the benefits of the rule.

The rule has been developed in full compliance with section 553(b) and (c) rulemaking requirements. The proposed rule was published in the Federal Register and provided 60 days for public comments. The public comments received are summarized and analyzed in this document. Also as part of this process, the park prepared a Draft Environmental Impact Statement (DEIS) that was made available to the public on September 13, 2002, for comment. The DEIS evaluated the various alternatives for managing PWC use at Glen Canyon, including an alternative with no PWC use. After reviewing the comments to the DEIS the NPS modified the proposed alternatives and

responded to comments in a Final Environmental Impact Statement that was made available to the public on May 16, 2003. This rule will now implement the preferred alternative B with certain modifications as a result of the public comments received in response to the proposed rule and the DEIS.

"In determining whether to invoke the exception, the agency is 'required to balance the necessity for immediate implementation against principles of fundamental fairness which require that all affected persons be afforded a reasonable time to prepare for the effective date of its ruling.'" The Northern Arapahoe Tribe v. Hodel, 808 F.2d 741, 752 (10th Cir. 1987). The primary purpose of the 30-day waiting period is to provide the public with time to prepare for the changes caused by the new rule. This rule authorizes the continued use of PWCs at Glen Canyon National Recreation Area. Because of the two-year grace period established by the March 2000 Final Rule and the temporary lifting of the PWC ban for the summer of 2003, PWC use has been allowed to continue at Glen Canyon despite the prohibition in 36 CFR 3.24. Providing a 30-day waiting period would not benefit the parties affected by this rule, instead there is good cause for making this rule effective upon publication so that affected parties can continue using PWCs.

List of Subjects in 36 CFR Part 7

District of Columbia, National parks, Reporting and recordkeeping requirements.

In consideration of the foregoing, the National Park Service amends 36 CFR part 7 as follows:

PART 7—SPECIAL REGULATIONS, AREAS OF THE NATIONAL PARK SYSTEM

1. The authority citation for part 7 continues to read as follows:

Authority: 16 U.S.C. 1, 3, 9a, 460(q), 462(k); Sec. 7.96 also issued under D.C. Code 8-137(1981) and D.C. Code 40-721 (1981).

2. Section 7.70 is amended by adding paragraph (g) to read as follows:

§ 7.70 Glen Canyon National Recreation Area.

* * * * *

(g) PWC. (1) A person may launch and operate a PWC in park waters or beach a PWC on park lands, except in the following areas:

(i) On the Colorado River between Glen Canyon Dam and the downstream river boundary of Glen Canyon National Recreation Area where it adjoins Grand Canyon National Park.

(ii) On the Colorado River upstream of Sheep Canyon.

(iii) On the San Juan River upstream of Clay Hills pullout.

(iv) On the Escalante River upstream of Coyote Creek.

(v) On the Dirty Devil River upstream of Utah Highway 95 bridge.

(2) A person may not operate a PWC at speed in excess of flat wake speed on the Escalante River from Cow Canyon to Coyote Creek.

(3) After December 31, 2012, no one may operate a PWC that does not meet the 2006 emission standards set by EPA for the manufacturing of two-stroke engines. A person operating a PWC that meets the EPA 2006 emission standards through the use of direct injection two-stroke or four-stroke engines, or the equivalent thereof, is not subject to this prohibition and will be allowed to operate as described in this section.

(4) The Superintendent may temporarily limit, restrict or terminate access to the areas designated for PWC use after taking into consideration public health and safety, natural and cultural resource protection, and other management activities and objectives.

_____ _____

Craig Manson Date
Assistant Secretary
Fish and Wildlife and Parks

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